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OPTIMAL WEIGHT BREAK FOR MINIMUM FREIGHT CHARGES

DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

Operations Research and Economic Analysis Office

Cameron Station,
Alexandria, Virginia 22304-6100

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DLA-LO

FOREWORD

The DLA Operations Research and Economic Analysis Management Support Office (DORO) was tasked with reviewing the less-than-truckload (LTL) minimum freight category of the Guaranteed Traffic Program (GTP). The objective of the project was to determine whether or not carriers' rates were skewed upwards; if this was found to be true it was requested that an optimal weight break point be determined.

Two approaches were used to investigate the LTL minimum freight charges. The first method was to do charge comparisons. Two comparisons were performed: one using the discounted Military Traffic Management Command (MTMC) Class 100 Standard Baseline Rates and the second using carriers' government discounts on the commercial rates published by a nationwide carrier. The first comparison showed that the GTP charges were 33.04% lower than the discounted MTMC charges. The second comparison indicated that the GTP charges were 40.57% less than the discounted commercial charges. The second approach was an application of linear regression. The regression model, based on the average rate per hundredweight per mile of the other LTL weight categories, predicted a higher average rate per hundredweight per mile than was obtained from the actual shipment data. The conclusion of both approaches is that there is no evidence the rates for the LTL minimum freight category are skewed upwards.

The determination of an optimal weight break point is not feasible because of the dynamic nature of the GTP agreements, in which carriers can adjust their rates in response to changes in the conditions of those agreements.

for Christine L. Galle.
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I. INTRODUCTION DLA's Operations Research and Economic Analysis Management Support Office (DORO) was tasked by DLA's Directorate of Supply Operations Transportation Division (DLA-OT) to investigate the charges being assessed minimum freight less-than-truckload (LTL) traffic. The problem was perceived to be that charges imposed by carriers on the minimum freight shipments, i.e. shipments less than 200 pounds, are too high.

A. Background

A DLA-DORO study titled "Motor Carrier Cost Per Mile Analysis," published in March 1987, stated that "the adverse effects of the minimum charges makes the less-than-truckload (LTL) Guaranteed Traffic Program (GTP) less cost effective than it might be."[1] Therefore, it recommended that studies be initiated to investigate in detail the effects of minimum charges.

The current situation for DLA minimum freight shipments is that all six depots are managing their minimum freight traffic using a management tool called the Guaranteed Traffic Program (GTP). The goal of GTP is to provide timely service to DLA customers at the lowest possible cost. This program is a bid-based solicitation process that awards all traffic from a depot to a specific destination or region to the lowest bidder. The lowest bidder must demonstrate that he has sufficient equipment to provide an acceptable level of service. Prior to making the award MTMC prepares and issues a solicitation package in which all interested bidders are required to provide their rates per hundredweight for moving both LTL and Truckload (TL) traffic, beginning with shipment weights of 200 pounds.

B. Problem Statement

Previous analysis revealed that the minimum charges for shipments under 200 pounds may be adversely affecting our Guaranteed Traffic rates.

C. Objectives

1. Review the minimum weight categories in the Guaranteed Traffic Program agreements to determine if rates are being skewed upward.

2. If this is the case, determine the optimal weight break point for minimum freight LTL charges.

D. Scope

1. The data for this study was obtained from the Freight Information System (FINS) files for calendar year 1987. FINS is a database containing the GBLS (Government Bills of Lading) paid by the various military finance offices.

2. All shipment weights were required to be less than 200 pounds.

3. Shipments were by motor carrier.

4. Points of origin were limited to the six DLA defense depots.

5. Destinations were required to be within the Continental United States (CONUS).

II. CONCLUSIONS AND RECOMMENDATION

A. Conclusions

1. The GTP charges for the LTL minimum freight based on the 200 lb break point were 40.57% less than the charges derived from the discounted government tenders applied to the commercial rates and minimum charges.

2. The GTP charges for the LTL minimum freight based on the 200 lb break point were 33.04% less than the charges derived from the discounted Military Traffic Management Command's (MTMC) Class 100 Standard Baseline rates and minimum charges.

3. The regression model predicted that a rate per hundredweight per mile cost of .0162 dollars would be consistent with the rates of the other LTL weight groups. The rate per hundredweight per mile obtained from the FINS data, .0157, was found to be significantly less at the 95% confidence level than the .0162 figure.

4. The regression model supports the results of the cost comparisons. There is no evidence in the data to suggest that the rates for the LTL minimum freight category are skewed upwards.

5. The determination of the optimal weight break point is not feasible since the fully allocated costs of the carriers are not known and because of the dynamic nature of the GTP agreements, in which carriers' can adjust their rates in response to changes in the conditions of those agreements.

B. Recommendation

Continue using the minimum charge criteria of the GTP to manage the cost of LTL traffic.

III. METHODOLOGY

A. Data Gathering

After testing the 729,787 records in the FINS tapes, 176,098 records met the screening requirements of the study as listed in the scope. The fields of interest were: origin and destination states, origin and destination Standard Point Location Codes (SPLC), process month, shipment mode, total weight, total charges, and origin carrier. Having created the data set, the next step was to attach a mileage field and rate fields. This was accomplished using a computer program matching routine.

B. Data Exploration

Initial data exploration was accomplished by obtaining summary statistics on the following variables: charges, weight, and mileage. Frequency analyses were performed on these variables for the entire data set and subsequently by depot. It was determined that there were some records in which the value of one or more of the study's variables was missing or zero. These records were eliminated from the data set.

According to the MTMC Class 100 Standard Baseline Rate Schedule the maximum a shipper should pay for a shipment rated at 200 pounds is less than 135 dollars. Using the round figure of 150 dollars to screen for outliers a total of 149 shipments with charges exceeding 150 dollars was also eliminated. On the other hand there were shipments having charges of only one or two cents. To account for transcription errors recording charges unreasonably low, all shipments whose charges were less than one dollar were also eliminated.

This filtering of the data does not eliminate all transcription errors, only the more obvious ones. The final data set contained 172,004 observations.

Frequency analysis was performed on the principal variables of the study: weight, mileage, and charges. In addition frequency analysis was performed on the carriers handling LTL minimum freight traffic. The results of the analyses are set forth in Appendix A. Appendix A is composed of tables summarizing these results on a depot basis and on an overall basis.

C. Study Approach

1. Charge Comparisons

Two approaches were used to examine the question of whether carriers have skewed the minimum charges upward. The first approach was to do charge comparisons between the actual GTP charges and charges computed according to other rate schedules. The rationale for doing such comparisons is that if the GTP charges for minimum freight shipments exceeded the computed charges for minimum freight shipments derived from other appropriate rate schedules this would be evidence that the GTP rates were too high (skewed upwards).

One consideration in doing comparisons is to ensure that the computed charges are calculated from a rate schedule in use during calendar year 1987. One schedule employed was a three digit zip code commercial rate schedule, which is used to rate shipments by a nationwide carrier. The charges calculated for the January through March portion of 1987 were computed with the commercial rates issued in October 1986. To compute charges for shipments processed in the months April through December rates published in April 1987 were used. These schedules did not contain rates for intrastate shipments; therefore, only interstate shipments were rated.

The second schedule used to perform comparisons was the MTMC Class 100 Standard Baseline Rate schedule. Carriers use this schedule as the basis for submitting bids for handling traffic (intrastate and interstate) sent by Defense Department shippers.

It is reliably known that carriers bidding for guaranteed traffic offer discounts, even on minimum charges. So, in doing comparisons, it was necessary to obtain tenders from the same period as the FINS data. Tenders are published listings of rates offered by carriers to handle freight for specific origin-destination pairs. It was possible to obtain tenders for each depot except Ogden from Defense Depot Richmond Transportation Center Support Branch. Unfortunately, copies of government tenders for that depot were not available and so it became necessary to estimate the discount offered in calendar 1987; the estimate was 20%. This discount is believed to be a reasonable estimate of the discount offered at that time. For example the discounts on the rates for LTL minimum freight shipments originating from California, as reported in DCASR - Los Angeles Routing Instructions, 1 July 1986, ranged from 20% to 25%.

A frequency analysis was performed on carriers by depot. This output was used to determine the discounts to use in rating shipments. Only those tenders associated with carriers who accounted for approximately 2% or more of the depot's traffic were used to do the rating. As for the remaining shipments the discount offered by the nationwide carrier publishing the commercial rates was applied.

Having obtained an appropriate rate schedule and set of discounts the following method was employed to compute the commercial charges for comparison with the GTP charges. (The charge for a shipment is subject to the applicable rate multiplied by the actual weight but not less than the absolute minimum charge.) Each shipment was rated two ways, as shown below. These two computations were compared and the highest selected as the shipment's charge.

Computation #1 = Minimum charge * discount #1
Computation #2 = (0-499 lb rate/Cwt) * .681 * weight/100 * discount #2

Computation #1 is obtained by multiplying the minimum charge, which is a flat cost the carrier assesses for shipments of a minimum quantity, by the discount the carrier offers on that minimum charge (discount #1). Computation #2 is calculated in the following way. The 0-499 pound rate per hundredweight is multiplied by the weight of the shipment converted to hundredweight. This result is multiplied by the discount the carrier offers on traffic in the 0-499 pound category (discount #2). The commercial rate computations were based on the application of government tenders (class 50). Class 50 rates are obtained by multiplying by the factor .681.

An analogous approach was used to rate shipments using the discounted MTMC Class 100 Standard Baseline Rates. A second set of government tenders was obtained from the Defense Depot Richmond Transportation Center Support Branch applicable to the MTMC Baseline Rate schedule. Tenders for the

Tracy Depot for 1987 were not available. To estimate the discounts offered during that period the discounts in the 1988 tenders were applied. Formulas to rate the shipments are shown below. Recall that discount #1 represents the discount offered by a carrier on the minimum charge and discount #2 is the discount offered by that same carrier on the rate for the 0-499 weight category. As before, the higher of the two computations was used as the shipment's computed charge.

Computation #1 = Minimum charge * discount #1
Computation #2 = (0-499 lb rate/Cwt) * weight/100 * discount #2

2. Linear Regression

The project was approached using a second method. The value of using two different techniques to answer the same question is that one confirms the other or raises healthy skepticism about the other. The second method is an application of linear regression. It makes use of the transportation statistic - average cost per hundredweight per mile (avg$/Cwt/mile), which was used in the report: "Motor Carrier Cost Per Mile Analysis." [2] Intuitively, one would expect each of the LTL weight groups to be characterized by an average cost and an average weight. Moreover, these attributes should be related. So, one would like to quantify that relationship for the purpose of developing a model that would predict the average rate for the minimum freight LTL shipments based on its average weight.

In calculating average weight per shipment (avg#/shpt) one should use the billed weight as opposed to the actual weight. However, a frequency analysis of all LTL shipments revealed that in the large majority of cases the billed weight was recorded in the FINS file as missing or zero. Consequently, it became necessary to use the actual weight.

The idea of this approach was to build a simple linear regression model and to use it to predict the average rate per hundredweight per mile for minimum freight LTL shipments. The prediction would be based on the avg$/Cwt/mile for the other LTL weight categories. This method assumes that the avg$/Cwt/mile for the other LTL weight categories are fair and not skewed upwards.

Correlation analysis showed that there was a definite relationship between avg$/Cwt/mile and average weight per shipment. The correlation analysis and subsequent regression work was based on five observations. Each observation pair, i.e. avg$/Cwt/mile and avg#/shpt, represents one of the five LTL weight categories recognized by MTMC: 200-499 pounds, 500-999 pounds, 1000-1999 pounds, 2000-4999 pounds, and 5000-9999 pounds. Shipments of 10,000 pounds and greater are considered truckload; so it was not proper to include data from such weight categories in the data set.

IV. ANALYSIS

A. Charge Comparisons

The following two tables display the results of the two different charge comparisons. The first, Table 1, shows the comparison between the GTP charges and the charges computed according to the discounted MTMC Class 100 Standard Baseline Rates by depot. A total of 172,004 shipments were rated, including both intrastate and interstate. All depots showed that GTP for minimum freight shipments resulted in lower overall charges than would be obtained for 200 pound shipments charged according to the discounted MTMC rates. The smallest difference was for the Tracy depot; however, this result could be misleading as the only discount tenders available for rating the shipments out of Tracy were the tenders for 1988. Over all depots the GTP charges were found to be 33.04% less than charges derived from the discounted MTMC Standard Baseline rates for the same set of shipments.

The second, Table 2, shows the results of the comparison between the GTP charges and the charges computed according to the discounted government tenders, applied to commercial rates published in October 1986 and April 1987. The total number of shipments was 159,680, representing interstate shipments only. Each depot had a GTP that gave lower overall charges. The total cost difference between the GTP charges and the discounted class 50 commercial rates was 40.57%.

Table 1

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES

BASED ON DISCOUNTED MTMC STANDARD BASELINE RATES

Depot	Total GTP	Total MTMC Chg	Diffrnce MTMC-GTP	Percentage Diff/MTMC	Shipments <200 Lbs
DDTC	$535,468	$665,898	$130,430	19.59 %	16205
DDCO	$728,850	$1,177,029	$448,179	38.08 %	25188
DDMP	$1,060,008	$1,531,009	$471,001	30.76 %	34755
DDMT	$1,150,265	$1,919,906	$769,641	40.09 %	40133
DDOU	$538,390	$798,448	$260,058	32.57 %	18388
DDRV	$1,102,115	$1,547,010	$444,895	28.76 %	37335
Total	$5,115,096	$7,639,290	$2,524,204	33.04 %	172004

Table 2

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES

BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO

COMMERCIAL CLASS 50 RATES

Depot	Total GTP	Total Tenders	Difference Tndr-GTP	Percentage (Diff/Tndr)	Shipments <200 Lbs
DDTC	$434,753	$660,970	$226,217	34.23 %	11457
DDCO	$713,317	$1,182,552	$469,235	39.68 %	24065
DDMP	$1,020,255	$1,635,042	$614,787	37.60 %	33057
DDMT	$1,134,268	$2,125,405	$991,137	46.63 %	39034
DDOU	$531,474	$920,170	$388,696	42.24 %	18038
DDRV	$1,027,878	$1,656,863	$628,985	37.96 %	34029
Total	$4,861,945	$8,181,002	$3,319,057	40.57 %	159680

Table B-1 in Appendix B lists the charge comparisons with the discounted commercial rates for each state from all depots. Table B-2 presents the results of the charge comparisons with the discounted MTMC Standard Baseline rates for each state from all depots. Succeeding tables show the results of comparisons for each state on a depot basis.

B. Regression Analysis

Details of the regression analysis and model building can be found in Appendix C. The model was used to predict the value of the average rate per Cwt per mile for the minimum weight category, predicting a value of .0162. The avg $/Cwt/mile for the minimum freight LTL shipments obtained from the FINS data is .0157. This value is outside the 95% confidence limits for the predicted average rate. We can interpet this result to mean that we are 95% sure the observed avg $/Cwt/mile is not equal to the predicted value.

A statistical test was then performed at the 95% confidence level to determine whether the observed value is lower than predicted. The test result indicated that the value obtained from the FINS data is lower than the model predicts. This result may be interpeted to be additional evidence in support of the contention that the rates for LTL minimum freight traffic are not too high. Details concerning the determination of the confidence limits and the statistical test may be found in Appendix C.

C. Optimal Weight Break

The determination of an optimal weight break point was conditional upon the rates for LTL minimum freight traffic being too high. As the rates were not judged to be too high, no effort was expended in this area. Work could be

done to examine the question of whether another weight break point might be more advantageous to the government for future GTP solicitations. However whether a new weight break point would minimize cost or whether it would result in lower overall cost would depend upon the outcome of the negotiation step of the GTP process.

APPENDIX A

Frequency Analyses of Minimum Freight Weight, Distance, Charges and Carriers by Depot

Table A-1

DISTRIBUTION OF WEIGHTS FOR SHIPMENTS FROM DDCO

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	5021	19.9	5021	19.9
26 - 50	4199	16.7	9220	36.6
51 - 75	4083	16.2	13303	52.8
76 -100	3862	15.3	17165	68.1
101-125	2664	10.6	19829	78.7
126-150	2208	8.8	22037	87.5
151-175	1783	7.1	23820	94.6
176-200	1368	5.4	25188	100.0

Table A-2

DISTRIBUTION OF DISTANCES FOR SHIPMENTS FROM DDCO

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 50	413	1.6	413	1.6
51 - 100	165	0.7	578	2.3
101 - 250	2380	9.4	2958	11.7
251 - 500	5742	22.8	8700	34.5
501 -1000	11319	44.0	20019	79.5
1001-1500	1822	7.2	21841	86.7
1501-2000	688	2.7	22529	89.4
2001-2500	2655	10.6	25184	100.0
2501-3500	4	0.0	25188	100.0

Table A-3

DISTRIBUTION OF CHARGES FOR SHIPMENTS FROM DDCO

Shipment $Charges	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	24	0.1	24	0.1
11- 20	2565	10.2	2589	10.3
21- 30	14128	56.1	16717	66.4
31- 40	5222	20.7	21939	87.1
41- 50	2971	11.8	24910	98.9
51- 60	112	0.4	25022	99.3
61- 70	92	0.4	25114	99.7
71- 80	46	0.2	25160	99.9
81- 90	12	0.0	25172	99.9
91-100	7	0.1	25179	100.0
101-125	4	0.0	25183	100.0
126-150	5	0.0	25188	100.0

Table A-4

DISTRIBUTION OF ORIGIN CARRIERS FOR SHIPMENTS FROM DDCO

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ABFS	8494	33.7	8494	33.7
MNGM	1028	4.1	9522	37.8
PRES	1862	7.4	11384	45.2
RNLO	1097	4.4	12481	49.6
YFSY	12619	50.1	25100	99.7
Miscell	88	0.3	25188	100.0

Table A-5

DISTRIBUTION OF WEIGHTS FOR SHIPMENTS FROM DDMP

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	5212	15.0	5212	15.0
26 - 50	5673	16.3	10885	31.3
51 - 75	6303	18.2	17188	49.5
76 -100	6010	17.2	23198	66.7
101-125	3909	11.3	27107	78.0
126-150	3166	9.1	30273	87.1
151-175	2437	7.0	32710	94.1
176-199	2045	5.9	34755	100.0

Table A-6

DISTRIBUTION OF DISTANCES FOR SHIPMENTS FROM DDMP

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 50	366	1.1	366	1.1
51- 100	392	1.1	758	2.2
101- 250	6553	18.8	7311	21.0
251- 500	7808	22.5	15119	43.5
501-1000	7647	22.0	22766	65.5
1001-1500	4123	11.9	26889	77.4
1501-2000	2579	7.4	29468	84.8
2001-2500	1235	3.5	30703	88.3
2501-3500	4052	11.7	34755	100.0

Table A-7

DISTRIBUTION OF CHARGES FOR SHIPMENTS FROM DDMP

Shipment $Charges	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	192	0.6	192	0.6
11- 20	2901	8.3	3093	8.9
21- 30	18406	53.0	21499	61.9
31- 40	6345	18.2	27844	80.1
41- 50	5827	16.8	33671	96.9
51- 60	474	1.3	34145	98.2
61- 70	346	1.0	34491	99.2
71- 80	144	0.5	34635	99.7
81- 90	66	0.1	34701	99.8
91-100	14	0.1	34715	99.9
101-125	33	0.1	34748	100.0
126-150	7	0.0	34755	100.0

Table A-8

DISTRIBUTION OF ORIGIN CARRIERS FOR SHIPMENTS FROM DDMP

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
CSAT	1057	3.0	1057	3.0
MEBG	1881	5.4	2938	8.4
OVNT	5519	15.9	8457	24.3
PFCR	3358	9.7	11815	34.0
PRES	1030	3.0	12845	37.0
RDWY	5174	14.9	18019	51.9
THUR	3655	10.5	21674	62.4
YFSY	10387	29.9	32061	92.3
Miscell	2694	7.7	34755	100.0

Table A-9

DISTRIBUTION OF WEIGHTS FOR SHIPMENTS FROM DDMT

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	4028	10.0	4028	10.0
26- 50	6874	17.1	10902	27.2
51- 75	7105	17.7	18007	44.9
76-100	6700	16.7	24707	61.6
101-125	5171	12.9	29878	74.4
126-150	4200	10.5	34078	84.9
151-175	3485	8.7	37563	93.6
176-200	2570	6.4	40133	100.0

Table A-10

DISTRIBUTION OF DISTANCES FOR SHIPMENTS FROM DDMT

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 50	324	0.8	324	0.8
51- 100	178	0.5	502	1.3
101- 250	2502	6.2	3004	7.5
251- 500	9891	24.6	12895	32.1
501-1000	16754	41.8	29649	73.9
1001-1500	4451	11.1	34100	85.0
1501-2000	3377	8.4	37477	93.4
2001-2500	2656	6.6	40133	100.0

Table A-11

DISTRIBUTION OF CHARGES FOR SHIPMENTS FROM DDMT

Shipment $Charges	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	16	0.0	16	0.0
11- 20	9174	22.9	9190	22.9
21- 30	19193	47.8	28383	70.7
31- 40	3714	9.3	32097	80.0
41- 50	4577	11.4	36674	91.4
51- 60	2850	7.1	39524	98.5
61- 70	390	1.0	39914	99.5
71- 80	106	0.3	40020	99.7
81- 90	33	0.1	40053	99.8
91-100	11	0.0	40064	99.8
101-125	55	0.1	40119	100.0
126-150	14	0.0	40133	100.0

Table A-12

DISTRIBUTION OF ORIGIN CARRIERS FOR SHIPMENTS FROM DDMT

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ABFS	5310	13.2	5310	13.2
BSVL	2390	6.0	7700	19.2
CFWY	6278	15.6	13978	34.8
MNGM	1569	3.9	15547	38.7
RDWY	5253	13.1	20800	51.8
THUR	11849	29.5	32649	81.3
TSUS	2283	5.7	34932	87.0
WWAT	3393	8.5	38325	95.5
Miscell	1808	4.5	40133	100.0

Table A-13

DISTRIBUTION OF WEIGHTS FOR SHIPMENTS FROM DDOU

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	4392	23.9	4392	23.9
26- 50	4006	21.8	8398	45.7
51- 75	2878	15.6	11276	61.3
76-100	2245	12.2	13521	73.5
101-125	1643	9.0	15164	82.5
126-150	1327	7.2	16491	89.7
151-175	1077	5.8	17568	95.5
176-200	820	4.5	18388	100.0

Table A-14

DISTRIBUTION OF DISTANCES FOR SHIPMENTS FROM DDOU

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 50	297	1.6	297	1.6
51- 250	144	0.8	441	2.4
251- 500	583	3.2	1024	5.6
501-1000	6454	35.1	7478	40.7
1001-1500	3755	20.4	11233	61.1
1501-2000	3194	17.4	14427	78.5
2001-2500	3897	21.2	18324	99.7
2501-3000	64	0.3	18388	100.0

Table A-15

DISTRIBUTION OF CHARGES FOR SHIPMENTS FROM DDOU

Shipment $Charges	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	16	0.1	16	0.1
11- 20	723	3.9	739	4.0
21- 30	9996	54.4	10735	58.4
31- 40	6545	35.6	17280	94.0
41- 50	711	3.9	17991	97.8
51- 60	191	1.0	18182	98.9
61- 70	100	0.5	18282	99.4
71- 80	47	0.3	18329	99.7
81- 90	41	0.2	18370	99.9
91-100	10	0.1	18380	100.0
101-125	7	0.0	18387	100.0
126-150	1	0.0	18388	100.0

Table A-16

DISTRIBUTION OF ORIGIN CARRIERS FOR SHIPMENTS FROM DDOU

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ABFS	908	4.9	908	4.9
CFWY	641	3.5	1549	8.4
EDSN	368	2.0	1917	10.4
MILN	428	2.4	2345	12.8
OVNT	2762	15.0	5107	27.8
RDWY	7370	40.1	12477	67.9
YFSY	5076	27.6	17553	95.5
Miscell	835	4.5	18388	100.0

Table A-17

DISTRIBUTION OF WEIGHTS FOR SHIPMENTS FROM DDRV

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	8948	24.0	8948	24.0
26- 50	7362	19.7	16310	43.7
51- 75	5456	14.6	21766	58.3
76-100	4719	12.6	26485	70.9
101-125	3585	9.6	30070	80.5
126-150	2903	7.8	32973	88.3
151-175	2302	6.2	35275	94.5
176-200	2060	5.5	37335	100.0

Table A-18

DISTRIBUTION OF DISTANCES FOR SHIPMENTS FROM DDRV

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 50	656	1.8	656	1.8
51- 100	2193	5.8	2849	7.6
101- 250	4931	13.2	7780	20.8
251- 500	9140	24.5	16920	45.3
501-1000	12565	33.7	29485	79.0
1001-1500	3787	10.1	33272	89.1
1501-2000	955	2.6	34227	91.7
2001-2500	928	2.5	35155	94.2
2501-3000	2180	5.8	37335	100.0

Table A-19

DISTRIBUTION OF CHARGES FOR SHIPMENTS FROM DDRV

Shipments $Charges	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	899	2.4	899	2.4
11- 20	12881	34.5	13780	36.9
21- 30	7978	21.4	21758	58.3
31- 40	5723	15.3	27481	73.6
41- 50	6220	16.7	33701	90.3
51- 60	2255	6.0	35956	96.3
61- 70	805	2.2	36761	98.5
71- 80	406	1.1	37167	99.6
81- 90	97	0.2	37264	99.8
91-100	40	0.1	37304	99.9
101-125	21	0.1	37325	100.0
126-150	10	0.0	37335	100.0

Table A-20

DISTRIBUTION OF ORIGIN CARRIERS FOR SHIPMENTS FROM DDRV

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ABFS	1505	4.0	1505	4.0
CFWY	2926	7.8	4431	11.8
OVNT	2953	7.9	7384	19.7
PFCR	2860	7.7	10244	27.4
RDWY	4366	11.7	14610	39.1
SJTC	4361	11.7	18971	50.8
THUR	2813	7.5	21784	58.3
YFSY	10867	29.1	32651	87.4
RAEI	1023	2.7	33674	90.1
Miscell	3661	9.9	37335	100.0

Table A-21

DISTRIBUTION OF WEIGHTS FOR ALL SHIPMENTS FROM DDTC

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	1731	10.7	1731	10.7
26- 50	1393	8.6	3124	19.3
51- 75	1697	10.5	4821	29.8
76-100	3318	20.4	8139	50.2
101-125	2686	16.6	10825	66.8
126-150	2116	13.1	12941	79.9
151-175	1826	11.2	14767	91.1
176-200	1438	8.9	16205	100.0

Table A-22

DISTRIBUTION OF DISTANCES FOR SHIPMENTS FROM DDTC

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 50	229	1.4	229	1.4
51- 100	1616	10.0	1845	11.4
101- 250	572	3.5	2417	14.9
251- 500	2599	16.0	5016	31.0
501-1000	1570	9.7	6586	40.6
1001-1500	872	5.4	7458	46.0
1501-2000	1843	11.4	9301	57.4
2001-2500	2391	14.8	11692	72.2
2501-3000	3948	24.3	15640	96.5
3001-3500	565	3.5	16205	100.0

Table A-23

DISTRIBUTION OF CHARGES FOR SHIPMENTS FROM DDTC

Shipment $Charges	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	156	1.0	156	1.0
11- 20	2342	14.4	2498	15.4
21- 30	5520	34.1	8018	49.5
31- 40	3118	19.2	11136	68.7
41- 50	4468	27.6	15604	96.3
51- 60	289	1.8	15893	98.1
61- 70	76	0.4	15969	98.5
71- 80	78	0.5	16047	99.0
81- 90	72	0.5	16119	99.5
91-100	32	0.2	16151	99.7
101-125	45	0.2	16196	99.9
126-150	9	0.1	16205	100.0

Table A-24

DISTRIBUTION OF ORIGIN CARRIERS FOR SHIPMENTS FROM DDTC

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ABFS	597	3.7	597	3.7
BOWM	1413	8.7	2164	12.4
CFWY	6943	42.8	9109	55.2
FBNT	642	4.0	10043	59.2
GITC	727	4.5	10774	63.7
MILN	1421	8.8	12776	72.5
SMTC	2178	13.4	15008	85.9
WADA	764	4.7	16163	90.6
Miscell	1520	9.4	16205	100.0

Table A-25

DISTRIBUTION OF WEIGHTS FOR ALL SHIPMENTS

FOR ALL DEPOTS

Weight (Lbs)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 25	29332	17.1	29332	17.1
26 - 50	29507	17.1	58839	34.2
51 - 75	27522	16.0	86361	50.2
76 -100	26854	15.6	113215	65.8
101-125	19658	11.4	132873	77.2
126-150	15920	9.3	148793	86.5
151-175	12910	7.5	161703	94.0
176-199	10301	6.0	172004	100.0

Table A-26

DISTRIBUTION OF DISTANCES OF SHIPMENTS

FOR ALL DEPOTS

Distance (Miles)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 100	6829	4.0	6829	4.0
101 - 500	52845	30.7	59674	34.7
501 -1000	56309	32.7	115983	67.4
1001-1500	18810	11.0	134793	78.4
1501-2000	12636	7.3	147429	85.7
2001-2500	13762	8.0	161191	93.7
2501-3500	10813	6.3	172004	100.0

Table A-27

DISTRIBUTION OF CHARGES FOR SHIPMENTS

FOR ALL DEPOTS

Shipment Chgs($)	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<= 10	1303	0.8	1303	0.8
11 - 20	30586	17.8	31889	18.6
21 - 30	75221	43.7	107110	62.3
31 - 40	30667	17.8	137777	80.1
41 - 50	24774	14.4	162551	94.5
51 - 60	6171	3.6	168722	98.1
61 - 70	1809	1.0	170531	99.1
71 - 80	827	0.5	171358	99.6
81 - 90	321	0.2	171679	99.8
91 -100	114	0.1	171793	99.9
101-150	211	0.1	172004	100.0

Table A-28

DISTRIBUTION OF ORIGIN CARRIERS

FOR MINIMUM FREIGHT LTL SHIPMENTS

Carrier	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ABFS	16814	9.8	16825	9.8
CFWY	16840	9.8	38470	19.6
OVNT	11558	6.7	62158	26.3
PFCR	6218	3.6	68834	29.9
RDWY	22163	12.9	95813	42.8
THUR	18317	10.7	124695	53.5
YFSY	38954	22.6	171309	76.1
Miscell	41135	23.9	172004	100.0

APPENDIX B

Comparisons of GTP Charges With Charges Derived From Alternate Rate Schedules by Depot

Table B-1

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES TO ALL STATES FROM ALL DEPOTS

Destn	Total GTP	Total Tenders	Difference Tndr-GTP	Percentage (Diff/Tndr)	Shipments <200 lbs
AL	$122,130	$219,038	$96,909	44.24%	4631
AR	$65,654	$110,366	$44,711	40.51%	2307
AZ	$78,510	$142,222	$63,712	44.80%	2434
CA	$510,621	$907,620	$396,999	43.74%	13928
CO	$59,400	$104,821	$45,421	43.33%	1860
CT	$66,360	$107,078	$40,718	38.03%	2286
DC	$26,360	$49,391	$23,031	46.63%	1053
DE	$27,912	$56,911	$28,999	50.95%	1253
FL	$325,692	$512,881	$187,189	36.50%	10696
GA	$149,901	$265,577	$115,676	43.56%	5642
IA	$42,774	$73,046	$30,272	41.44%	1415
ID	$30,138	$54,554	$24,416	44.76%	982
IL	$99,017	$167,890	$68,872	41.02%	3391
IN	$75,523	$125,102	$49,578	39.63%	2611
KS	$73,156	$122,262	$49,106	40.16%	2473
KY	$74,856	$134,003	$59,147	44.14%	2857
LA	$135,803	$208,594	$72,791	34.90%	4210
MA	$99,806	$151,856	$52,050	34.28%	3134
MD	$131,199	$233,588	$102,389	43.83%	5127
ME	$71,083	$98,256	$27,173	27.66%	1898
MI	$108,173	$181,348	$73,175	40.35%	3715
MN	$57,892	$107,125	$49,233	45.96%	1976
MO	$82,520	$134,028	$51,508	38.43%	2700
MS	$92,621	$168,597	$75,975	45.06%	3519
MT	$25,576	$47,474	$21,898	46.13%	802
NC	$103,613	$195,254	$91,641	46.93%	4183
ND	$46,968	$81,678	$34,709	42.50%	1357
NE	$34,729	$59,790	$25,061	41.91%	1108
NH	$36,048	$52,275	$16,228	31.04%	1079
NJ	$135,115	$206,546	$71,431	34.58%	4517
NM	$55,379	$92,734	$37,355	40.28%	1608
NV	$30,577	$55,076	$24,499	44.48%	940
NY	$242,715	$362,527	$119,811	33.05%	7632
OH	$91,542	$158,730	$67,188	42.33%	3313
OK	$96,117	$157,937	$61,821	39.14%	3139
OR	$29,681	$54,099	$24,418	45.14%	924
PA	$153,897	$256,709	$102,812	40.05%	5268
RI	$45,582	$72,846	$27,263	37.43%	1509
SC	$122,592	$226,836	$104,243	45.96%	4806
SD	$31,191	$51,972	$20,782	39.99%	880
TN	$38,076	$63,166	$25,089	39.72%	1336
TX	$347,211	$584,940	$237,729	40.64%	10984
UT	$41,286	$75,044	$33,758	44.98%	1240
VA	$212,827	$344,153	$131,327	38.16%	7161
VT	$19,852	$30,036	$10,183	33.90%	623
WA	$177,385	$283,247	$105,862	37.37%	4462
WI	$81,035	$139,574	$58,539	41.94%	2765
WV	$37,332	$60,724	$23,392	38.52%	1384
WY	$18,514	$31,481	$12,967	41.19%	562

Table B-2

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON

DISCOUNTED MTMC CLASS 100 BASELINE RATES FOR ALL DEPOTS

Destn	Total GTP	Total MTMC Chg	Diffrnce MTMC-GTP	Percentage Diff/MTMC	Shipments <200 lbs
AL	$121,920	$194,038	$72,119	37.167%	4625
AR	$65,654	$98,732	$33,077	33.502%	2307
AZ	$78,550	$123,757	$45,207	36.529%	2435
CA	$611,392	$963,319	$351,927	36.533%	18676
CO	$59,400	$92,953	$33,553	36.097%	1860
CT	$66,334	$92,756	$26,422	28.485%	2285
DC	$26,360	$40,163	$13,803	34.367%	1053
DE	$27,870	$49,069	$21,199	43.203%	1251
FL	$325,671	$503,036	$177,365	35.259%	10696
GA	$149,920	$236,895	$86,975	36.715%	5642
IA	$42,820	$64,255	$21,435	33.360%	1417
ID	$30,138	$45,624	$15,486	33.943%	982
IL	$99,033	$139,731	$40,698	29.126%	3391
IN	$75,502	$103,426	$27,924	26.999%	2611
KS	$73,156	$111,363	$38,206	34.308%	2473
KY	$74,903	$113,074	$38,171	33.757%	2858
LA	$135,803	$188,262	$52,459	27.865%	4210
MA	$99,756	$133,950	$34,194	25.527%	3133
MD	$131,128	$199,317	$68,189	34.211%	5128
ME	$71,083	$90,599	$19,517	21.542%	1898
MI	$108,201	$158,285	$50,084	31.642%	3716
MN	$57,892	$96,185	$38,293	39.812%	1976
MO	$82,520	$112,800	$30,280	26.844%	2700
MS	$92,610	$153,115	$60,505	39.516%	3518
MT	$25,576	$38,153	$12,577	32.965%	802
NC	$103,613	$166,951	$63,338	37.938%	4184
ND	$46,968	$68,772	$21,803	31.704%	1357
NE	$34,756	$51,789	$17,033	32.889%	1109
NH	$36,077	$47,913	$11,835	24.702%	1080
NJ	$135,305	$180,720	$45,414	25.130%	4523
NM	$55,379	$80,449	$25,070	31.162%	1608
NV	$30,538	$44,292	$13,754	31.053%	939
NY	$242,715	$304,308	$61,592	20.240%	7632
OH	$106,883	$169,472	$62,589	36.932%	4430
OK	$96,117	$146,403	$50,286	34.348%	3139
OR	$29,681	$46,183	$16,502	35.731%	924
PA	$193,702	$270,020	$76,318	28.264%	6967
RI	$45,582	$64,950	$19,367	29.819%	1509
SC	$122,576	$196,868	$74,292	37.737%	4805
SD	$31,191	$42,404	$11,213	26.444%	880
TN	$54,411	$98,253	$43,842	44.622%	2445
TX	$347,251	$543,433	$196,182	36.100%	10986
UT	$48,234	$76,725	$28,492	37.135%	1590
VA	$286,562	$408,148	$121,586	29.790%	10454
VT	$19,852	$27,057	$7,204	26.626%	623
WA	$177,657	$260,813	$83,156	31.883%	4466
WI	$81,075	$123,445	$42,370	34.323%	2766
WV	$37,332	$50,217	$12,885	25.659%	1384
WY	$18,447	$26,857	$8,410	31.313%	561

TABLE B-3

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES

DEPOT : DDCO

Destn	Total GTP	Total Tenders	Diffrnce Tndr-GTP	Percent Diff/Tndr	Total Shpmnts
AL	$18,681	$33,147	$14,466	43.64	649
AR	$6,229	$12,081	$5,852	48.44	273
AZ	$8,149	$12,477	$4,327	34.68	202
CA	$90,738	$134,384	$43,645	32.48	2019
CO	$4,475	$7,290	$2,815	38.62	139
CT	$10,585	$18,137	$7,552	41.64	438
DC	$2,421	$5,410	$2,989	55.26	114
DE	$3,375	$6,027	$2,652	44.00	154
FL	$41,237	$65,079	$23,842	36.64	1231
GA	$17,228	$32,484	$15,256	46.96	634
IA	$10,751	$17,896	$7,145	39.93	373
ID	$2,637	$3,310	$672	20.32	60
IL	$22,392	$33,503	$11,111	33.16	751
IN	$17,862	$28,757	$10,894	37.88	691
KS	$6,697	$9,303	$2,605	28.01	207
KY	$13,876	$27,028	$13,152	48.66	600
LA	$14,377	$21,250	$6,873	32.35	448
MA	$13,014	$21,581	$8,567	39.69	518
MD	$16,957	$32,524	$15,567	47.86	804
ME	$9,706	$15,259	$5,554	36.40	348
MI	$25,062	$39,963	$14,901	37.29	914
MN	$18,977	$32,617	$13,641	41.82	645
MO	$9,500	$13,798	$4,298	31.15	327
MS	$13,994	$24,909	$10,915	43.82	479
MT	$2,795	$3,552	$756	21.30	68
NC	$13,091	$32,748	$19,657	60.03	642
ND	$8,459	$12,897	$4,438	34.41	216
NE	$2,585	$4,737	$2,152	45.43	85
NH	$4,949	$8,183	$3,233	39.51	196
NJ	$20,703	$32,783	$12,081	36.85	825
NM	$4,141	$6,443	$2,302	35.74	112
NV	$2,653	$4,100	$1,447	35.29	65
NY	$30,258	$54,271	$24,014	44.25	1114
OK	$7,443	$13,561	$6,119	45.12	284
OR	$2,407	$2,972	$565	19.00	50
PA	$31,453	$52,813	$21,360	40.44	1198
RI	$7,258	$12,089	$4,831	39.96	290
SC	$18,287	$41,431	$23,144	55.86	807
SD	$3,100	$4,493	$1,393	31.00	72
TN	$7,329	$13,605	$6,276	46.13	270
TX	$34,715	$58,885	$24,170	41.05	1109
UT	$7,615	$11,880	$4,265	35.90	203
VA	$45,382	$83,076	$37,695	45.37	1815
VT	$2,641	$4,365	$1,724	39.50	106
WA	$28,897	$34,008	$5,111	15.03	570
WI	$23,588	$34,177	$10,590	30.98	778
WV	$3,482	$5,711	$2,229	39.03	139
WY	$1,168	$1,560	$391	25.10	33

Table B-4

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES

DEPOT : DDMP

Destn	Total GTP	Total Tenders	Diffrnce Tndr-GTP	Percent Diff/Tndr	Total Shpmnts
AL	$18,216	$26,890	$8,674	32.26	662
AR	$9,158	$17,169	$8,011	46.66	334
AZ	$19,900	$30,787	$10,887	35.36	462
CA	$159,935	$242,682	$82,747	34.10	3441
CO	$13,999	$22,839	$8,841	38.71	395
CT	$17,636	$29,964	$12,328	41.14	690
DC	$7,405	$13,967	$6,562	46.98	357
DE	$5,703	$17,198	$11,495	66.84	433
FL	$50,573	$64,848	$14,275	22.01	1540
GA	$21,390	$32,173	$10,783	33.52	822
IA	$4,955	$8,875	$3,920	44.17	177
ID	$6,598	$10,069	$3,471	34.47	150
IL	$15,796	$30,362	$14,567	47.98	651
IN	$10,529	$20,206	$9,677	47.89	450
KS	$11,292	$21,000	$9,708	46.23	400
KY	$9,037	$17,485	$8,447	48.31	384
LA	$20,123	$33,984	$13,861	40.79	635
MA	$25,649	$40,824	$15,175	37.17	911
MD	$28,519	$52,296	$23,776	45.46	1328
ME	$17,950	$25,552	$7,602	29.75	529
MI	$21,976	$43,500	$21,524	49.48	947
MN	$6,417	$11,592	$5,175	44.64	225
MO	$11,374	$20,246	$8,872	43.82	408
MS	$14,899	$21,643	$6,744	31.16	507
MT	$3,931	$6,323	$2,392	37.83	98
NC	$25,045	$39,963	$14,918	37.33	995
ND	$11,531	$19,475	$7,943	40.79	321
NE	$5,684	$10,477	$4,794	45.75	191
NH	$8,763	$12,766	$4,002	31.35	285
NJ	$34,102	$49,643	$15,541	31.31	1219
NM	$12,118	$19,363	$7,245	37.42	296
NV	$6,946	$10,502	$3,556	33.86	154
NY	$69,396	$93,427	$24,031	25.72	2260
OH	$21,827	$45,254	$23,426	51.77	1047
OK	$20,051	$34,831	$14,780	42.43	620
OR	$4,257	$6,374	$2,118	33.22	90
RI	$11,766	$19,531	$7,764	39.75	449
SC	$31,305	$50,358	$19,052	37.83	1211
SD	$4,672	$6,662	$1,990	29.88	102
TN	$8,458	$12,598	$4,140	32.87	310
TX	$71,198	$118,957	$47,760	40.15	1971
UT	$10,044	$16,153	$6,109	37.82	250
VA	$61,867	$98,047	$36,180	36.90	2503
VT	$4,649	$7,518	$2,869	38.16	166
WA	$45,126	$67,545	$22,419	33.19	960
WI	$8,902	$16,158	$7,256	44.91	336
WV	$6,791	$12,917	$6,125	47.42	315
WY	$2,796	$4,050	$1,254	30.97	70

Table B-5

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES

DEPOT : DDMT

Destn	Total GTP	Total Tenders	Diffrnce Tndr-GTP	Percent Diff/Tndr	Total Shpmnts
AL	$31,840	$71,680	$39,840	55.58	1556
AR	$26,529	$41,693	$15,164	36.37	922
AZ	$15,260	$29,923	$14,663	49.00	483
CA	$123,854	$284,579	$160,725	56.48	4097
CO	$14,192	$27,640	$13,448	48.66	510
CT	$6,852	$14,215	$7,363	51.79	242
DC	$6,138	$12,593	$6,455	51.26	200
DE	$6,076	$12,061	$5,984	49.62	215
FL	$80,274	$121,942	$41,669	34.17	3101
GA	$35,181	$68,171	$32,989	48.39	1436
IA	$15,427	$27,787	$12,360	44.48	490
ID	$6,396	$11,912	$5,516	46.31	176
IL	$27,844	$50,099	$22,255	44.42	894
IN	$22,889	$38,604	$15,715	40.71	695
KS	$19,380	$34,699	$15,319	44.15	666
KY	$18,211	$36,463	$18,252	50.06	786
LA	$52,335	$80,218	$27,884	34.76	1722
MA	$13,824	$23,459	$9,635	41.07	394
MD	$19,722	$41,621	$21,899	52.62	730
ME	$10,614	$14,170	$3,557	25.10	229
MI	$16,778	$35,052	$18,274	52.13	588
MN	$17,248	$39,210	$21,962	56.01	632
MO	$36,900	$62,214	$25,315	40.69	1201
MS	$25,773	$58,814	$33,041	56.18	1288
MT	$4,317	$8,899	$4,582	51.49	137
NC	$17,218	$33,970	$16,753	49.32	651
ND	$10,640	$24,386	$13,747	56.37	339
NE	$11,563	$21,072	$9,509	45.13	325
NH	$3,843	$6,148	$2,305	37.49	103
NJ	$20,220	$38,287	$18,067	47.19	653
NM	$14,125	$24,120	$9,995	41.44	440
NV	$6,253	$11,634	$5,380	46.25	174
NY	$33,314	$63,005	$29,692	47.13	1047
OH	$21,890	$37,585	$15,695	41.76	668
OK	$30,098	$47,688	$17,590	36.89	998
OR	$8,075	$14,652	$6,577	44.89	201
PA	$32,816	$59,789	$26,973	45.11	1063
RI	$5,980	$12,403	$6,424	51.79	208
SC	$15,600	$32,633	$17,034	52.20	656
SD	$9,382	$18,732	$9,350	49.91	258
TX	$111,403	$197,554	$86,151	43.61	3944
UT	$8,955	$18,499	$9,543	51.59	292
VA	$46,769	$76,928	$30,160	39.20	1408
VT	$2,367	$4,050	$1,683	41.54	69
WA	$33,696	$61,135	$27,439	44.88	839
WI	$23,955	$50,973	$27,018	53.00	887
WV	$6,048	$10,437	$4,389	42.05	206
WY	$6,206	$12,004	$5,798	48.30	215

Table B-6

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES

DEPOT : DDOU

Destn	Total GTP	Total Tenders	Diffrnce Tndr-GTP	Percent Diff/Tndr	Total Shpmnts
AL	$12,459	$20,937	$8,478	40.49	387
AR	$5,379	$9,588	$4,210	43.90	194
AZ	$8,179	$18,193	$10,014	55.04	374
CA	$68,397	$139,073	$70,676	50.82	2852
CO	$9,980	$15,668	$5,689	36.31	318
CT	$4,955	$7,403	$2,448	33.07	127
DC	$2,492	$3,877	$1,386	35.73	65
DE	$2,953	$4,444	$1,491	33.55	77
FL	$30,385	$48,521	$18,136	37.38	811
GA	$16,424	$29,023	$12,599	43.41	519
IA	$3,397	$5,739	$2,341	40.80	128
ID	$4,716	$10,826	$6,111	56.44	274
IL	$8,161	$13,670	$5,509	40.30	286
IN	$6,767	$10,624	$3,857	36.31	215
KS	$18,430	$30,236	$11,807	39.05	688
KY	$8,083	$12,965	$4,881	37.65	252
LA	$11,918	$18,086	$6,168	34.10	349
MA	$8,421	$12,936	$4,515	34.91	216
MD	$13,998	$21,503	$7,504	34.90	374
ME	$6,240	$8,623	$2,383	27.64	138
MI	$7,572	$11,348	$3,776	33.28	223
MN	$5,706	$9,384	$3,678	39.19	206
MO	$5,611	$9,526	$3,915	41.10	207
MS	$8,528	$14,930	$6,402	42.88	283
MT	$5,849	$12,044	$6,196	51.44	245
NC	$9,573	$16,918	$7,345	43.42	294
ND	$6,190	$9,999	$3,809	38.09	225
NE	$7,314	$11,717	$4,403	37.58	286
NH	$3,562	$4,995	$1,433	28.68	82
NJ	$10,983	$17,017	$6,034	35.46	295
NM	$7,196	$15,968	$8,771	54.93	328
NV	$4,941	$8,662	$3,721	42.96	181
NY	$17,147	$26,674	$9,526	35.71	449
OH	$10,160	$16,779	$6,619	39.45	321
OK	$13,925	$22,903	$8,978	39.20	517
OR	$9,690	$21,014	$11,324	53.89	432
PA	$16,174	$25,556	$9,382	36.71	443
RI	$3,757	$5,660	$1,903	33.62	95
SC	$10,979	$18,769	$7,789	41.50	326
SD	$7,134	$11,400	$4,266	37.42	271
TN	$5,446	$8,950	$3,504	39.15	172
TX	$37,029	$65,209	$28,180	43.22	1364
VA	$25,580	$38,721	$13,141	33.94	669
VT	$1,588	$2,352	$763	32.46	39
WA	$25,243	$51,662	$26,418	51.14	1041
WI	$5,912	$9,486	$3,574	37.68	198
WV	$2,522	$3,471	$949	27.34	64
WY	$4,427	$7,121	$2,693	37.82	138

Table B-7

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES

DEPOT : DDRV

Destn	Total GTP	Total Tenders	Diffrnce Tndr-GTP	Percent Diff/Tndr	Total Shpmnts
AL	$27,620	$46,613	$18,993	40.75	1033
AR	$12,897	$21,591	$8,695	40.27	431
AZ	$12,228	$18,406	$6,178	33.57	279
CA	$67,697	$106,903	$39,206	36.67	1519
CO	$9,323	$14,559	$5,236	35.96	249
CT	$20,425	$29,383	$8,958	30.49	662
DC	$6,631	$11,624	$4,993	42.95	287
DE	$6,199	$11,716	$5,517	47.09	286
FL	$90,356	$164,994	$74,639	45.24	3241
GA	$40,297	$75,249	$34,952	46.45	1751
IA	$6,656	$10,255	$3,599	35.10	199
ID	$4,016	$6,016	$2,000	33.25	90
IL	$16,223	$27,506	$11,283	41.02	577
IN	$12,852	$20,230	$7,378	36.47	441
KS	$12,285	$19,475	$7,189	36.92	364
KY	$16,955	$27,459	$10,504	38.25	616
LA	$23,956	$38,233	$14,277	37.34	749
MA	$30,803	$42,349	$11,547	27.27	928
MD	$35,768	$63,405	$27,638	43.59	1533
ME	$20,150	$26,835	$6,685	24.91	535
MI	$28,199	$41,214	$13,015	31.58	864
MN	$7,253	$10,930	$3,677	33.64	204
MO	$14,525	$21,539	$7,014	32.56	432
MS	$21,265	$36,468	$15,203	41.69	750
MT	$2,950	$4,642	$1,692	36.45	72
NC	$24,856	$52,579	$27,723	52.73	1289
ND	$5,336	$7,835	$2,499	31.89	122
NE	$5,355	$8,515	$3,159	37.10	153
NH	$12,006	$16,308	$4,301	26.38	353
NJ	$36,518	$51,037	$14,520	28.45	1237
NM	$10,604	$15,145	$4,541	29.98	228
NV	$4,396	$6,789	$2,393	35.25	101
NY	$73,914	$100,766	$26,851	26.65	2379
OH	$29,518	$46,931	$17,413	37.10	1067
OK	$18,436	$29,228	$10,792	36.92	525
OR	$3,823	$5,554	$1,731	31.17	78
PA	$54,008	$90,262	$36,254	40.17	2107
RI	$11,025	$15,402	$4,377	28.42	345
SC	$28,565	$57,551	$28,985	50.36	1378
SD	$3,780	$6,233	$2,453	39.36	93
TN	$12,124	$20,536	$8,412	40.96	450
TX	$60,041	$98,851	$38,810	39.26	1712
UT	$7,598	$12,707	$5,109	40.21	196
VT	$7,329	$10,022	$2,694	26.88	216
WA	$37,653	$55,613	$17,960	32.29	783
WI	$14,497	$22,780	$8,282	36.36	457
WV	$16,956	$25,966	$9,010	34.70	623
WY	$2,010	$2,658	$648	24.38	45

Table B-8

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES BASED ON DISCOUNTED GOVERNMENT TENDERS APPLIED TO COMMERCIAL CLASS 50 RATES

DEPOT : DDTC

Destn	Total GTP	Total Tenders	Diffrnce Tndr-GTP	Percent Diff/Tndr	Total Shpmnts
AL	$13,315	$19,773	$6,458	32.66	344
AR	$5,463	$8,243	$2,780	33.72	153
AZ	$14,794	$32,437	$17,643	54.39	634
CO	$7,433	$16,825	$9,393	55.82	249
CT	$5,906	$7,975	$2,069	25.95	127
DC	$1,274	$1,920	$647	33.67	30
DE	$3,605	$5,466	$1,860	34.03	88
FL	$32,868	$47,496	$14,628	30.80	772
GA	$19,379	$28,476	$9,097	31.94	480
IA	$1,588	$2,495	$907	36.34	48
ID	$5,776	$12,421	$6,646	53.50	232
IL	$8,602	$12,751	$4,148	32.53	232
IN	$4,624	$6,680	$2,056	30.78	119
KS	$5,071	$7,549	$2,478	32.83	148
KY	$8,694	$12,605	$3,911	31.03	219
LA	$13,095	$16,822	$3,728	22.16	307
MA	$8,095	$10,707	$2,612	24.39	167
MD	$16,235	$22,240	$6,005	27.00	358
ME	$6,424	$7,816	$1,391	17.80	119
MI	$8,587	$10,271	$1,685	16.40	179
MN	$2,292	$3,392	$1,099	32.42	64
MO	$4,610	$6,705	$2,095	31.25	125
MS	$8,163	$11,833	$3,670	31.02	212
MT	$5,734	$12,013	$6,279	52.27	182
NC	$13,831	$19,076	$5,246	27.50	312
ND	$4,812	$7,085	$2,273	32.08	134
NE	$2,227	$3,272	$1,044	31.92	68
NH	$2,924	$3,877	$953	24.58	60
NJ	$12,590	$17,778	$5,188	29.18	288
NM	$7,195	$11,695	$4,500	38.48	204
NV	$5,387	$13,388	$8,001	59.76	265
NY	$18,686	$24,384	$5,698	23.37	383
OH	$8,146	$12,181	$4,035	33.12	210
OK	$6,164	$9,726	$3,562	36.62	195
OR	$1,430	$3,533	$2,104	59.54	73
PA	$19,447	$28,290	$8,843	31.26	457
RI	$5,796	$7,761	$1,965	25.32	122
SC	$17,856	$26,094	$8,238	31.57	428
SD	$3,123	$4,451	$1,329	29.85	84
TN	$4,719	$7,477	$2,758	36.89	134
TX	$32,825	$45,484	$12,659	27.83	884
UT	$7,075	$15,807	$8,732	55.24	299
VA	$33,229	$47,381	$14,152	29.87	766
VT	$1,278	$1,729	$451	26.08	27
WA	$6,770	$13,283	$6,514	49.04	269
WI	$4,181	$6,001	$1,820	30.33	109
WV	$1,532	$2,221	$689	31.02	37
WY	$1,906	$4,087	$2,181	53.37	61

Table B-9

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES
BASED ON DISCOUNTED MTMC CLASS 100 BASELINE RATES

DEPOT : DDCO

Destn	Total GTP	Total MTMC Chgs	Diffrnce MTMC-GTP	Percent Diffrnce	Total Shpmnts
AL	$18,712	$28,731	$10,019	34.87	650
AR	$6,229	$12,830	$6,601	51.45	273
AZ	$8,189	$13,166	$4,977	37.80	203
CA	$90,738	$139,199	$48,461	34.81	2019
CO	$4,475	$8,065	$3,590	44.52	139
CT	$10,585	$19,646	$9,061	46.12	438
DC	$2,421	$4,446	$2,025	45.56	114
DE	$3,375	$6,006	$2,631	43.80	154
FL	$41,237	$62,792	$21,555	34.33	1231
GA	$17,228	$28,238	$11,010	38.99	634
IA	$10,780	$16,737	$5,957	35.59	374
ID	$2,637	$3,897	$1,260	32.33	60
IL	$22,392	$27,438	$5,046	18.39	751
IN	$17,862	$24,894	$7,032	28.25	691
KS	$6,697	$9,840	$3,143	31.94	207
KY	$13,876	$21,621	$7,745	35.82	600
LA	$14,377	$23,170	$8,793	37.95	448
MA	$13,014	$24,189	$11,175	46.20	518
MD	$16,978	$31,444	$14,466	46.00	805
ME	$9,706	$17,916	$8,210	45.83	348
MI	$25,090	$35,409	$10,319	29.14	915
MN	$18,977	$30,979	$12,002	38.74	645
MO	$9,500	$13,964	$4,464	31.96	327
MS	$13,994	$23,238	$9,244	39.78	479
MT	$2,795	$4,296	$1,501	34.94	68
NC	$13,091	$27,484	$14,393	52.37	642
ND	$8,459	$11,431	$2,972	26.00	216
NE	$2,585	$4,380	$1,795	40.99	85
NH	$4,949	$9,491	$4,542	47.85	196
NJ	$20,703	$34,641	$13,938	40.24	825
NM	$4,141	$6,847	$2,706	39.53	112
NV	$2,653	$4,269	$1,616	37.85	65
NY	$30,258	$46,371	$16,113	34.75	1114
OH	$15,344	$40,232	$24,888	61.86	1117
OK	$7,443	$14,898	$7,455	50.04	284
OR	$2,407	$3,446	$1,039	30.14	50
PA	$31,453	$44,829	$13,376	29.84	1198
RI	$7,258	$13,590	$6,332	46.59	290
SC	$18,287	$35,077	$16,790	47.86	807
SD	$3,100	$4,020	$920	22.88	72
TN	$7,329	$10,803	$3,474	32.15	270
TX	$34,715	$62,626	$27,911	44.57	1109
UT	$7,615	$12,996	$5,381	41.41	203
VA	$45,382	$74,278	$28,896	38.90	1815
VT	$2,641	$4,987	$2,346	47.04	106
WA	$28,897	$39,172	$10,275	26.23	570
WI	$23,628	$32,080	$8,452	26.35	779
WV	$3,462	$5,004	$1,522	30.42	139
WY	$1,168	$1,926	$758	39.34	33

Table B-10

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES
BASED ON DISCOUNTED MTMC CLASS 100 BASELINE RATES

DEPOT : DDMP

Destn	Total GTP	Total MTMC Chgs	Diffrnce MTMC-GTP	Percent Diffrnce	Total Shpmnts
AL	$18,186	$29,609	$11,423	38.58	661
AR	$9,158	$16,200	$7,042	43.47	334
AZ	$19,900	$28,690	$8,790	30.64	462
CA	$159,935	$227,556	$67,621	29.72	3441
CO	$13,999	$22,520	$8,521	37.84	395
CT	$17,610	$22,324	$4,713	21.11	689
DC	$7,405	$11,567	$4,162	35.98	357
DE	$5,682	$13,997	$8,315	59.41	432
FL	$50,591	$73,627	$23,036	31.29	1541
GA	$21,390	$35,192	$13,802	39.22	822
IA	$4,955	$8,299	$3,344	40.29	177
ID	$6,598	$9,250	$2,653	28.68	150
IL	$15,796	$26,909	$11,113	41.30	651
IN	$10,529	$17,342	$6,813	39.29	450
KS	$11,292	$19,972	$8,679	43.46	400
KY	$9,037	$15,199	$6,162	40.54	384
LA	$20,123	$31,959	$11,836	37.03	635
MA	$25,600	$31,174	$5,574	17.88	910
MD	$28,537	$43,113	$14,576	33.81	1329
ME	$17,950	$21,095	$3,145	14.91	529
MI	$21,976	$38,007	$16,031	42.18	947
MN	$6,417	$10,964	$4,547	41.47	225
MO	$11,374	$19,008	$7,634	40.16	408
MS	$14,899	$24,341	$9,443	38.79	507
MT	$3,931	$5,747	$1,816	31.60	98
NC	$25,045	$34,349	$9,305	27.09	995
ND	$11,531	$16,759	$5,227	31.19	321
NE	$5,684	$9,955	$4,271	42.90	191
NH	$8,793	$10,503	$1,710	16.28	286
NJ	$34,102	$39,540	$5,438	13.75	1219
NM	$12,118	$17,246	$5,128	29.73	296
NV	$6,946	$9,716	$2,771	28.52	154
NY	$69,396	$73,540	$4,144	5.63	2260
OH	$21,808	$35,151	$13,344	37.96	1046
OK	$20,051	$33,212	$13,161	39.63	620
OR	$4,257	$5,962	$1,705	28.60	90
PA	$39,812	$55,117	$15,305	27.77	1699
RI	$11,766	$14,548	$2,781	19.12	449
SC	$31,305	$47,758	$16,452	34.45	1211
SD	$4,672	$5,551	$880	15.85	102
TN	$8,458	$13,509	$5,051	37.39	310
TX	$71,198	$110,841	$39,644	35.77	1971
UT	$10,044	$14,610	$4,566	31.25	250
VA	$61,889	$81,175	$19,286	23.76	2504
VT	$4,649	$5,802	$1,153	19.88	166
WA	$45,126	$63,414	$18,288	28.84	960
WI	$8,902	$14,729	$5,828	39.57	336
WV	$6,791	$10,344	$3,552	34.34	315
WY	$2,796	$4,017	$1,221	30.40	70

Table B-11

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES
BASED ON DISCOUNTED MTMC CLASS 100 BASELINE RATES

DEPOT : DDMT

Destn	Total GTP	Total MTMC Chgs	Diffrnce MTMC-GTP	Percent Diffrnce	Total Shrmnts
AL	$31,629	$56,444	$24,815	43.96	1550
AR	$26,529	$33,256	$6,727	20.23	922
AZ	$15,260	$29,325	$14,065	47.96	483
CA	$123,854	$267,046	$143,192	53.62	4097
CO	$14,192	$27,435	$13,243	48.27	510
CT	$6,852	$13,884	$7,032	50.65	242
DC	$6,138	$10,000	$3,862	38.62	200
DE	$6,055	$11,128	$5,073	45.59	214
FL	$80,176	$143,251	$63,075	44.03	3099
GA	$35,201	$57,153	$21,952	38.41	1436
IA	$15,427	$21,797	$6,370	29.23	490
ID	$6,396	$11,431	$5,035	44.05	176
IL	$27,822	$35,616	$7,794	21.88	893
IN	$22,868	$27,189	$4,321	15.89	695
KS	$19,380	$27,743	$8,363	30.14	666
KY	$18,211	$29,367	$11,156	37.99	786
LA	$52,335	$65,034	$12,699	19.53	1722
MA	$13,824	$22,863	$9,039	39.54	394
MD	$19,611	$37,021	$17,410	47.03	729
ME	$10,614	$14,202	$3,588	25.27	229
MI	$16,778	$28,304	$11,526	40.72	588
MN	$17,248	$32,024	$14,776	46.14	632
MO	$36,900	$44,832	$7,932	17.69	1201
MS	$25,761	$46,374	$20,613	44.45	1287
MT	$4,317	$8,758	$4,441	50.71	137
NC	$17,218	$31,054	$13,836	44.56	651
ND	$10,640	$18,461	$7,821	42.37	339
NE	$11,563	$15,310	$3,747	24.47	325
NH	$3,843	$6,181	$2,338	37.83	103
NJ	$20,220	$35,246	$15,026	42.63	653
NM	$14,125	$23,182	$9,057	39.07	440
NV	$6,214	$11,177	$4,963	44.40	173
NY	$33,314	$57,058	$23,744	41.61	1047
OH	$21,890	$29,616	$7,726	26.09	668
OK	$30,098	$39,734	$9,636	24.25	998
OR	$8,075	$13,734	$5,659	41.20	201
PA	$32,809	$54,881	$22,072	40.22	1063
RI	$5,980	$12,048	$6,068	50.37	208
SC	$15,583	$28,920	$13,337	46.12	655
SD	$9,382	$13,471	$4,089	30.35	258
TN	$ 16,334	$40,981	$24,647	60.14	1109
TX	$111,425	$175,846	$64,421	36.64	3945
UT	$8,955	$17,796	$8,841	49.68	292
VA	$46,769	$70,238	$23,469	33.41	1408
VT	$2,367	$4,005	$1,638	40.89	69
WA	$33,876	$57,396	$23,520	40.98	842
WI	$23,955	$40,831	$16,876	41.33	887
WV	$6,048	$9,497	$3,449	36.31	206
WY	$6,206	$11,766	$5,560	47.25	215

Table B-12

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES
BASED ON DISCOUNTED MTMC CLASS 100 BASELINE RATES

DEPOT : DDOU

Destn	Total GTP	Total MTMC Chgs	Diffrnce MTMC-GTP	Percent Diffrnce	Total Shpmnts
AL	$12,459	$19,289	$6,830	35.41	387
AR	$5,379	$9,007	$3,628	40.28	194
AZ	$8,179	$13,556	$5,377	39.67	374
CA	$68,440	$105,026	$36,586	34.84	2854
CO	$9,980	$10,269	$290	2.82	318
CT	$4,955	$6,731	$1,775	26.37	127
DC	$2,492	$3,253	$761	23.41	65
DE	$2,953	$3,983	$1,030	25.86	77
FL	$30,328	$42,275	$11,947	28.26	810
GA	$16,424	$25,991	$9,567	36.81	519
IA	$3,397	$5,412	$2,014	37.22	128
ID	$4,716	$7,775	$3,059	39.35	274
IL	$8,161	$13,078	$4,917	37.60	286
IN	$6,767	$10,110	$3,343	33.07	215
KS	$18,430	$28,419	$9,989	35.15	688
KY	$8,083	$12,399	$4,316	34.81	252
LA	$11,918	$17,059	$5,140	30.13	349
MA	$8,421	$11,476	$3,055	26.62	216
MD	$13,998	$18,726	$4,727	25.24	374
ME	$6,240	$7,553	$1,313	17.38	138
MI	$7,572	$10,825	$3,253	30.05	223
MN	$5,706	$8,960	$3,254	36.31	206
MO	$5,611	$9,004	$3,394	37.69	207
MS	$8,528	$14,054	$5,526	39.32	283
MT	$5,849	$7,828	$1,979	25.28	245
NC	$9,573	$15,528	$5,955	38.35	294
ND	$6,190	$9,262	$3,071	33.16	225
NE	$7,314	$10,979	$3,664	33.38	286
NH	$3,562	$4,342	$780	17.96	82
NJ	$10,983	$15,667	$4,684	29.90	295
NM	$7,196	$11,852	$4,655	39.28	328
NV	$4,941	$5,594	$653	11.67	181
NY	$17,147	$23,278	$6,130	26.34	449
OH	$10,160	$15,819	$5,659	35.77	321
OK	$13,925	$21,760	$7,835	36.01	517
OR	$9,690	$15,543	$5,853	37.66	432
PA	$16,174	$22,502	$6,328	28.12	443
RI	$3,757	$5,047	$1,290	25.56	95
SC	$10,979	$16,942	$5,962	35.19	326
SD	$7,134	$10,387	$3,253	31.32	271
TN	$5,446	$8,397	$2,951	35.14	172
TX	$37,029	$61,213	$24,185	39.51	1364
UT	$6,931	$9,692	$2,761	28.49	349
VA	$25,580	$34,907	$9,327	26.72	669
VT	$1,588	$2,072	$484	23.34	39
WA	$25,243	$39,169	$13,926	35.55	1041
WI	$5,912	$9,016	$3,104	34.43	198
WV	$2,522	$3,203	$681	21.26	64
WY	$4,427	$4,220	$-207	-4.91	138

Table B-13

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES
BASED ON DISCOUNTED MTMC CLASS 100 BASELINE RATES

DEPOT : DDRV

Destn	Total GTP	Total MTMC Chgs	Diffrnce MTMC-GTP	Percent Diffrnce	Total Shpmnts
AL	$27,620	$42,875	$15,255	35.58	1033
AR	$12,897	$20,279	$7,382	36.40	431
AZ	$12,228	$17,322	$5,095	29.41	279
CA	$67,697	$100,172	$32,475	32.42	1519
CO	$9,323	$14,365	$5,042	35.10	249
CT	$20,425	$23,223	$2,798	12.05	662
DC	$6,631	$9,299	$2,668	28.69	287
DE	$6,199	$9,266	$3,067	33.10	286
FL	$90,471	$140,666	$50,195	35.68	3243
GA	$40,297	$65,715	$25,418	38.68	1751
IA	$6,672	$9,785	$3,113	31.81	200
ID	$4,016	$5,589	$1,573	28.15	90
IL	$16,223	$25,660	$9,437	36.78	577
IN	$12,852	$17,979	$5,127	28.52	441
KS	$12,285	$18,569	$6,283	33.84	364
KY	$17,002	$23,611	$6,609	27.99	617
LA	$23,956	$36,341	$12,385	34.08	749
MA	$30,803	$35,110	$4,307	12.27	928
MD	$35,768	$49,946	$14,179	28.39	1533
ME	$20,150	$23,322	$3,172	13.60	535
MI	$28,199	$36,875	$8,676	23.53	864
MN	$7,253	$10,264	$3,011	29.34	204
MO	$14,525	$20,145	$5,619	27.90	432
MS	$21,265	$34,736	$13,471	38.78	750
MT	$2,950	$4,427	$1,477	33.36	72
NC	$24,951	$41,973	$17,023	40.56	1291
ND	$5,336	$6,646	$1,309	19.70	122
NE	$5,355	$8,104	$2,748	33.91	153
NH	$12,006	$14,114	$2,108	14.93	353
NJ	$36,708	$40,281	$3,573	8.87	1243
NM	$10,604	$13,279	$2,674	20.14	228
NV	$4,396	$6,340	$1,943	30.65	101
NY	$73,914	$83,531	$9,616	11.51	2379
OH	$29,535	$38,218	$8,682	22.72	1068
OK	$18,436	$27,971	$9,535	34.09	525
OR	$3,823	$5,176	$1,353	26.15	78
PA	$54,008	$68,342	$14,335	20.97	2107
RI	$11,025	$13,041	$2,016	15.46	345
SC	$28,565	$45,370	$16,805	37.04	1378
SD	$3,780	$5,235	$1,455	27.80	93
TN	$12,124	$18,090	$5,966	32.98	450
TX	$60,060	$92,550	$32,490	35.11	1713
UT	$7,598	$11,502	$3,904	33.94	196
VA	$73,713	$106,734	$33,021	30.94	3292
VT	$7,329	$8,713	$1,384	15.89	216
WA	$37,745	$51,955	$14,210	27.35	784
WI	$14,497	$21,555	$7,058	32.74	457
WV	$16,956	$20,219	$3,263	16.14	623
WY	$1,944	$2,532	$588	23.21	44

Table B-14

COMPARISON OF GTP CHARGES VS COMPUTED CHARGES
BASED ON DISCOUNTED MTMC CLASS 100 BASELINE RATES

DEPOT : DDTC

Destn	Total GTP	Total MTMC Chgs	Diffrnce MTMC-GTP	Percent Diffrnce	Total Shpmnts
AL	$13,315	$17,090	$3,775	22.09	344
AR	$5,463	$7,160	$1,697	23.70	153
AZ	$14,794	$21,697	$6,903	31.81	634
CA	$100,728	$124,321	$23,593	18.98	4746
CO	$7,433	$10,299	$2,866	27.83	249
CT	$5,906	$6,949	$1,044	15.02	127
DC	$1,274	$1,598	$325	20.31	30
DE	$3,605	$4,689	$1,083	23.10	88
FL	$32,868	$40,424	$7,557	18.69	772
GA	$19,379	$24,606	$5,227	21.24	480
IA	$1,588	$2,226	$638	28.65	48
ID	$5,776	$7,682	$1,907	24.82	232
IL	$8,640	$11,030	$2,390	21.67	233
IN	$4,624	$5,912	$1,288	21.79	119
KS	$5,071	$6,820	$1,749	25.64	148
KY	$8,694	$10,877	$2,184	20.07	219
LA	$13,095	$14,700	$1,605	10.92	307
MA	$8,095	$9,138	$1,043	11.41	167
MD	$16,235	$19,067	$2,832	14.85	358
ME	$6,424	$6,512	$87	1.34	119
MI	$8,587	$8,865	$279	3.14	179
MN	$2,292	$2,995	$703	23.47	64
MO	$4,610	$5,847	$1,237	21.16	125
MS	$8,163	$10,371	$2,208	21.29	212
MT	$5,734	$7,097	$1,363	19.21	182
NC	$13,737	$16,563	$2,826	17.06	311
ND	$4,812	$6,214	$1,402	22.56	134
NE	$2,254	$3,061	$807	26.38	69
NH	$2,924	$3,282	$358	10.90	60
NJ	$12,590	$15,345	$2,755	17.95	288
NM	$7,195	$8,044	$848	10.55	204
NV	$5,387	$7,196	$1,809	25.13	265
NY	$18,686	$20,530	$1,844	8.98	383
OH	$8,146	$10,436	$2,290	21.94	210
OK	$6,164	$8,828	$2,664	30.18	195
OR	$1,430	$2,322	$892	38.44	73
PA	$19,447	$24,349	$4,902	20.13	457
RI	$5.796	$6,676	$880	13.18	122
SC	$17,856	$22,802	$4,946	21.69	428
SD	$3,123	$3,739	$616	16.48	84
TN	$4,719	$6,473	$1,754	27.10	134
TX	$32,825	$40,357	$7,532	18.66	884
UT	$7,091	$10,130	$3,038	29.99	300
VA	$33,229	$40,816	$7,587	18.59	766
VT	$1,278	$1,477	$199	13.50	27
WA	$6,770	$9,706	$2,937	30.25	269
WI	$4,181	$5,234	$1,053	20.11	109
WV	$1,532	$1,950	$418	21.43	37
WY	$1,906	$2,396	$490	20.46	61

APPENDIX C

Regression Analysis For Average Rate Per Hundredweight Per Mile Model

REGRESSION ANALYSIS & HYPOTHESIS TEST

Regression Analysis

Table C-1 (p. C-5) lists the data employed in developing the regression model. The data associated with all the LTL weight groups was used with the exception of the data derived from the <200 lb group. Figure C-1 is a plot of the average rate per Cwt per mile against the average weight of a shipment for the five LTL weight categories, not including shipments less than 200 pounds. Each point is labeled with its observed average weight. The plot shows that as the average weight of the shipments increases the average rate per Cwt per mile decreases quickly for the lighter weight groups and then flattens out for the heavier LTL weight groups. The plot suggests more of a curvilinear relationship between the variables than a linear one.

Several transformations of the independent variable (average weight per shipment) were attempted in order to linearize the relationship. Correlation analysis and subsequent regression analysis using the log of the average weight transformation as the predictor variable yielded results indicating a good fit for a regression model. However an analysis of residuals showed a definite pattern in the error associated with the predicted values. A squared term (log of average weight squared) was added to the model and the regression analysis was repeated. Figure C-2 is a graph of the avg $/Cwt/mile vs the sum of these two transformations of average weight per shipment; the graph shows a more linear relationship. Building on this result the following model was chosen:

$$\text{Avg \$/Cwt/mile}_i = b_0 + b_1 * \log(\text{avg wgt}_i) + b_2 * (\log(\text{avg wgt}_i))^2 + e_i$$

where 'i' is any LTL weight category

The results of the regression analysis are listed in Table C-2. One can see that the regression output indicates a good fit in terms of the coefficient of correlation, the F-statistic for the model, and the t-statistics for: the intercept, b1, and b2 coefficients. Figure C-3 is a plot of the residuals (observed value - predicted value) against the predicted value. The residual plot does not exhibit a pattern, which is additional proof of the adequacy of the fit.

Figure C-4 shows the observed avg $/Cwt/mile and the predicted value against the average weight of the LTL weight group. One can see that the fit is such that the observed and predicted values nearly overlap, indicating good agreement. Table C-3 lists the observed values and the predicted values with 95% confidence limits for all the LTL weight groups, except the minimum weight group. In all cases, the observed value falls within the confidence limits of the predicted value. The next step is to calculate the predicted value for the minimum freight LTL shipments.

Figure C-1

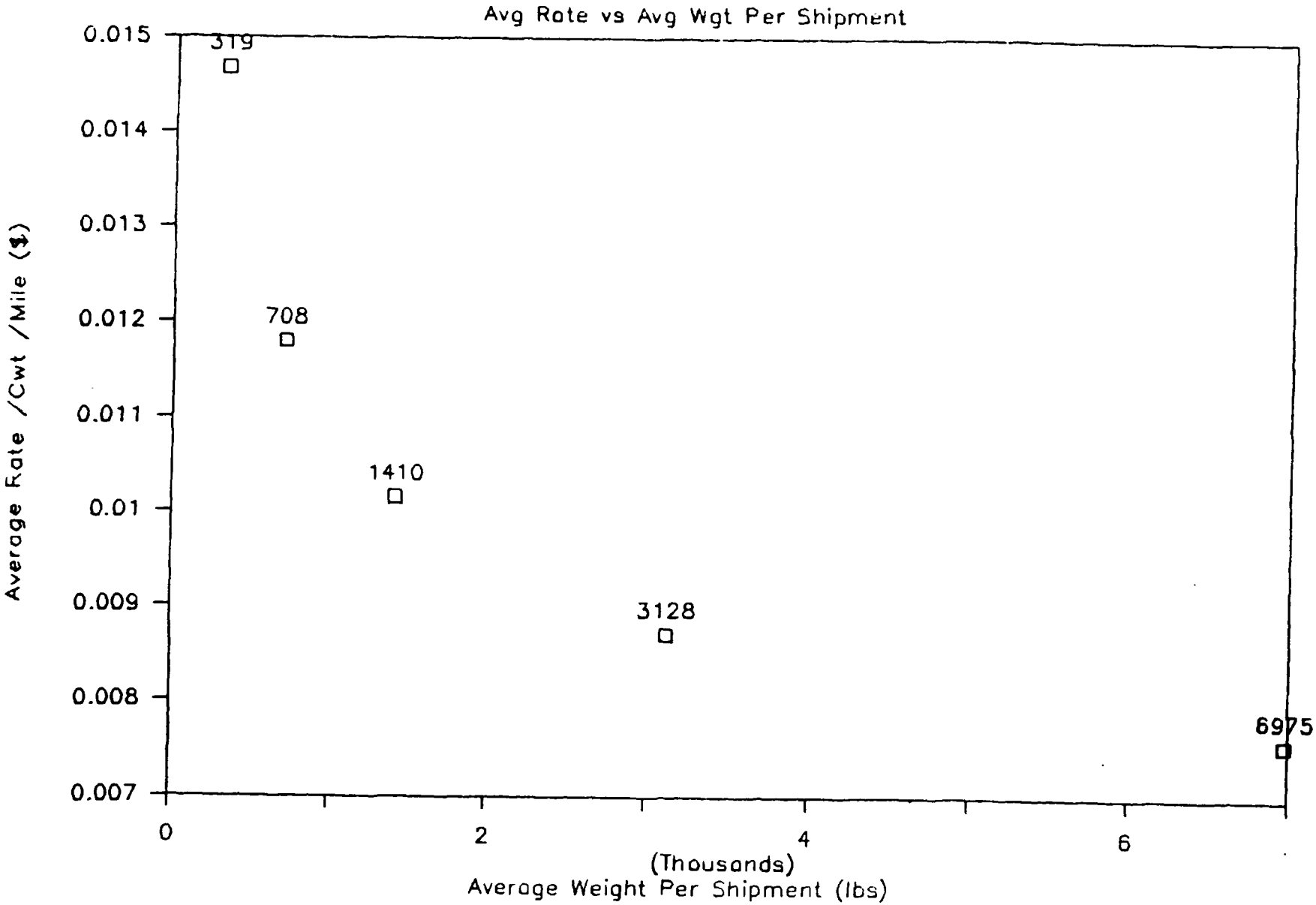
Avg Rate vs Avg Wgt Per Shipment
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008
0.007
319
708
1410
3128
6975
0
2
4
6
(Thousands)
Average Weight Per Shipment (lbs)
Average Rate /Cwt /Mile ($)

Figure C-2

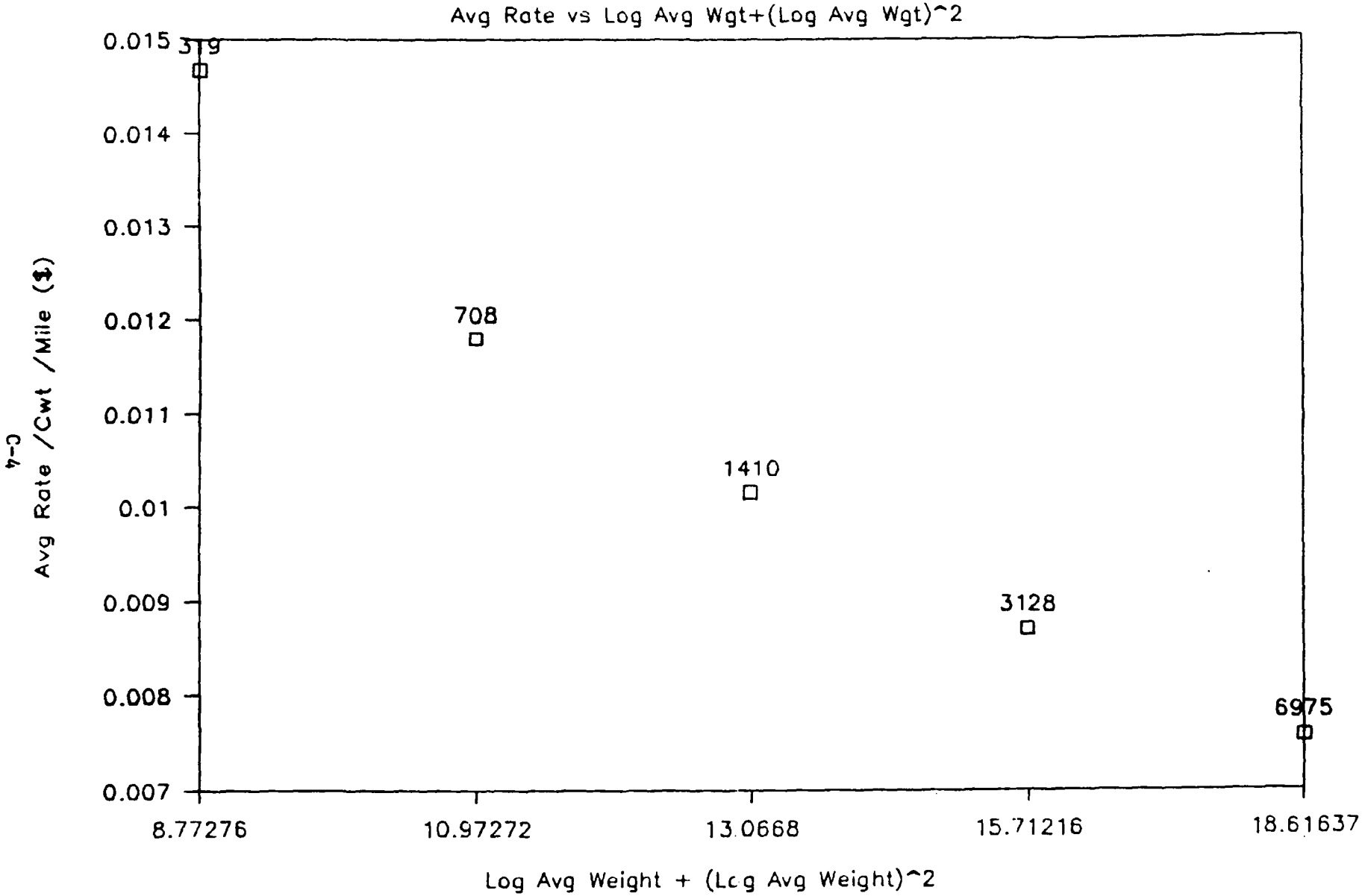
Avg Rate vs Log Avg Wgt+(Log Avg Wgt)^2
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008
0.007
Avg Rate /Cwt /Mile ($)
319
708
1410
3128
6975
8.77276
10.97272
13.0668
15.71216
18.61637
Log Avg Weight + (Log Avg Weight)^2

TABLE C-1

Data Used In Developing Regression Model

LTL Wgt Group (In Lbs)	Average Wgt (In Lbs)	Average Miles	Average Cost (Dollars)	Avg Rate/ Cwt /Mile
< 200	200	945	29.73	0.0157
200 - 499	319	939	43.93	0.0147
500 - 999	708	908	75.86	0.0118
1000 - 1999	1410	862	123.52	0.0102
2000 - 4999	3128	818	222.75	0.0087
5000 - 9999	6975	756	399.37	0.0076

Table C-2

Model Using Log(Xbarwgt) & Log(Xbarwgt)^2

General Linear Models Procedure (SAS)

Dependent Variable: Avg$/Cwt/Mi

Source	Df	Sum of Squares	Mean Square	F Value	PR > F	R Square	C.V.
Model	2	0.00002981	0.00001491	906.23	0.0011	0.9988	1.2223
Error	2	0.00000003	0.00000002				
Corr Totl	4	0.00002984					

Root MSE	Mean Avg$/Cwt/Mi
0.000128	.01049

Parameter	Estimate	T For H0: Parameter=0	PR > |T|	Std Error of Estimate
INTERCEPT	0.05003446	16.59	0.0036	0.00301577
B1	-0.0201477	-10.44	0.0090	0.00192897
B2	0.0023679	7.81	0.0160	0.00030304

Figure C-3

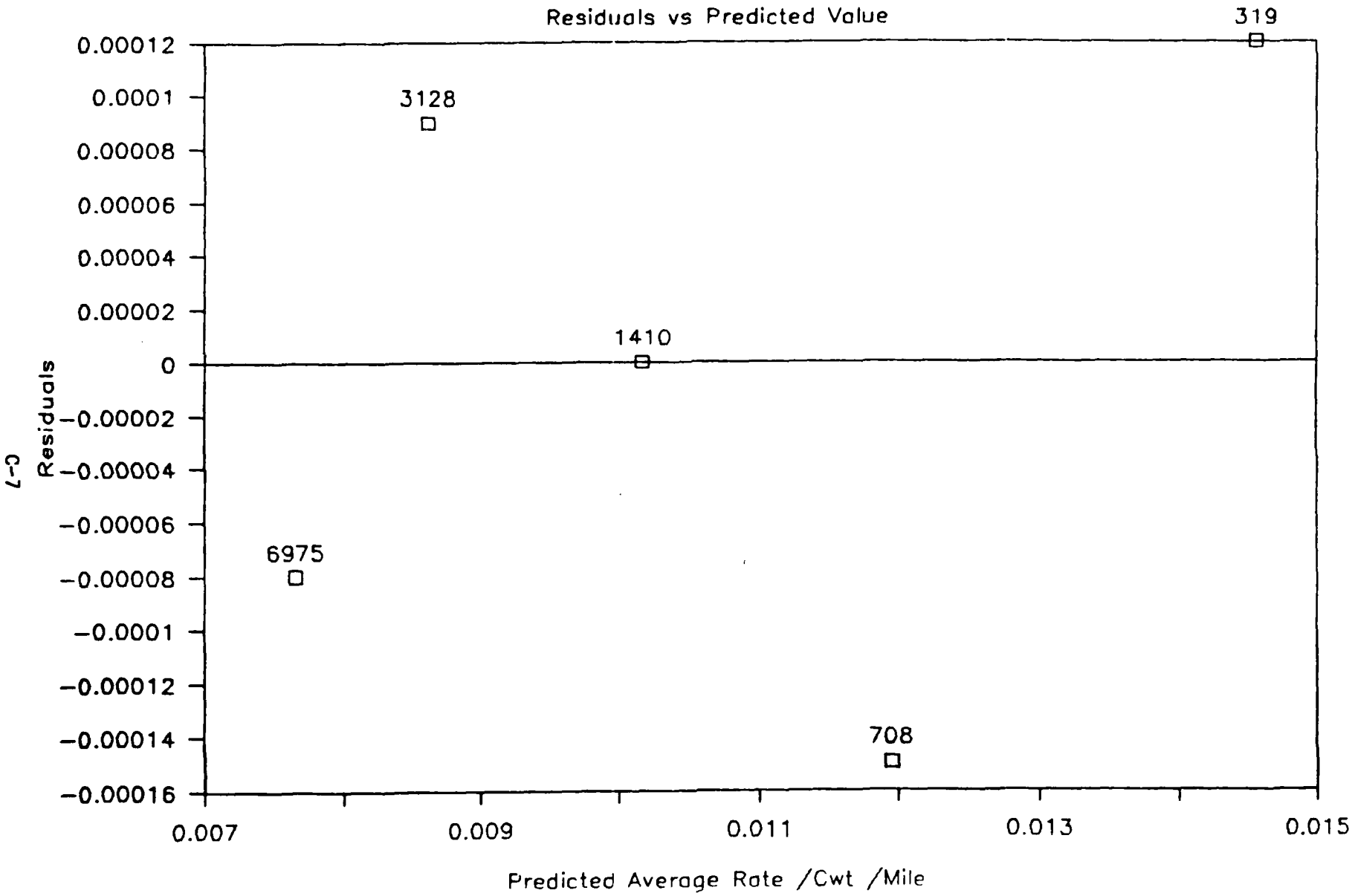
Residuals vs Predicted Value
319
3128
1410
6975
708
0.00012
0.0001
0.00008
0.00006
0.00004
0.00002
0
-0.00002
-0.00004
-0.00006
-0.00008
-0.0001
-0.00012
-0.00014
-0.00016
Residuals
0.007
0.009
0.011
0.013
0.015
Predicted Average Rate /Cwt /Mile

Figure C-4

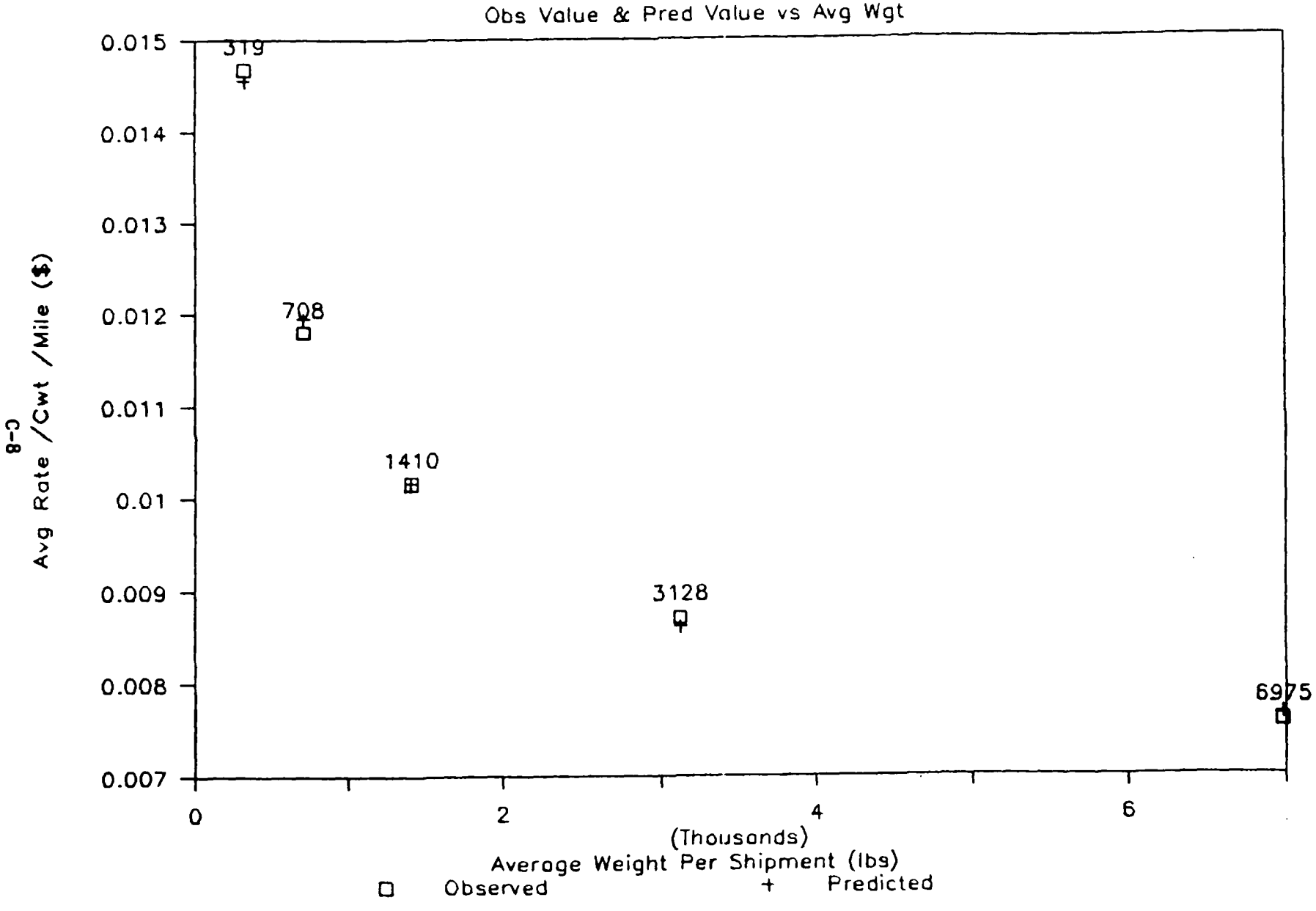
Obs Value & Pred Value vs Avg Wgt
0.015
0.014
0.013
0.012
0.011
0.01
0.009
0.008
0.007
319
708
1410
3128
6975
0
2
4
6
(Thousands)
Average Weight Per Shipment (lbs)
Avg Rate /Cwt /Mile ($)
Observed
Predicted

TABLE C-3

Comparison of Observed & Predicted

Average Rate Per Cwt Per Mile

LTL Wgt Group (In Lbs)	Observed (Dollars)	Predicted (Dollars)	Lower 95% C. Limit	Upper 95% C. Limit
200 - 499	0.0147	0.0144	0.0141	0.0147
500 - 999	0.0118	0.0118	0.0115	0.0121
1000 - 1999	0.0102	0.0100	0.0097	0.0103
2000 - 4999	0.0087	0.0085	0.0082	0.0088
5000 - 9999	0.0076	0.0075	0.0072	0.0078

Using the regression model, the predicted avg $/Cwt/mile for the LTL minimum freight group is:

$$\text{Avg \$/Cwt/mile}_{<200} = .05003 - .02014*\text{LOG}(200) + .00236*\text{LOG}(200)^2$$

$$\text{Avg \$/Cwt/mile}_{<200} = 0.0162$$

The 95% confidence limits associated with the predicted value are:

Lower 95% Confidence Limit = .0162 - (2.776 * .000128) = .0158

Upper 95% Confidence Limit = .0162 + (2.776 * .000128) = .0165

Hypothesis Test

The one-sided hypothesis test at the 95% confidence level to determine whether the predicted value for the avg$/Cwt/mile is less than the observed value is as follows:

Define Null hypothesis to be: predicted value - observed value = 0

Define Alternate hypothesis to be: predicted value - observed value > 0

The formula for calculating the test statistic is:

$$z_{test} = (x - mu) / (sigma / N)^{.5}$$

Where: x is the predicted avg $/Cwt/mile

mu is the observed avg $/Cwt/mile

sigma is the variance of mu

N is the total number of observations

Then:

$$z_{test} = (.0162 - .0157) / (.002903 / (172004))^{.5} = 3.85$$

From the normal probability tables, $z_{.05} = 1.64$

Since 3.85 > 1.64 reject the null hypothesis and conclude at the 95% confidence level that the predicted average rate per hundredweight per mile is greater than the observed value for the minimum freight LTL category.

APPENDIX D

References

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19. ABSTRACT (*Continue on reverse if necessary and identify by block number*)

The purpose of this study was to review the less-than-truckload (LTL) minimum freight category of the Guaranteed Traffic Program (GTP) to determine whether or not carriers' rates were skewed upwards; if this was found to be true, it was requested that an optimal weight break point be determined. Two approaches were used to investigate the LTL minimum freight charges. The first method was to do charge comparison. Two comparisons were performed: One using the discounted Military Traffic Management Command (MTMC) Class 100 Standard Baseline Rates and the second using carriers' government discounts on the commercial rates published by a nationwide carrier. The first comparison showed that the GTP charges were 33.04 percent lower than the discounted MTMC charges. The second comparison indicated that the GTP charges were 40.57 percent less than the discounted

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19. ABSTRACT (continued)

commercial charges. The second approach was an application of linear regression. The regression model, based on the average rate per hundredweight per mile of the other LTL weight categories, predicted a higher average rate per hundredweight per mile than was obtained from the actual shipment data. The conclusion of both approaches is that there is no evidence the rates for the LTL minimum freight category are skewed upwards. The determination of an optimal weight break point is not feasible because of the dynamic nature of the GTP agreements, in which carriers can adjust their rates in response to changes in the conditions of those agreements.